## Message

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**Sent**: 4/11/2018 1:19:44 PM

To: Mark Sheppard [msheppard@madison-kipp.com]; Vater, Katherine [KVater@trcsolutions.com]; Tony Koblinski

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**Subject**: EPA Comments for MKC

Hello Mark,

We've had the opportunity to review the information you have provided us and have the following comments:

- 1) Please provide information regarding the historical turbidity ranges you've seen in groundwater samples collected at the site.
- 2) Referring to groundwater samples to be collected for PCB, what specific size filter will be used for PCB groundwater sampling under your SOP (0.45 micron or other)?
- 3) EPA agrees that there is no need for a standalone QAPP for a project of this scale. However, the same QA elements for the project need to be covered in the project documents. Include all of the SOPs, and any others requested below, as addenda for reference in the 2-19-2018 On-Site PCB Monitoring and Interim Remedy Status Report which contains the Groundwater Monitoring Plan prepared for WDNR.
  - a. The monitoring well sampling plan should include a table summarizing samples that are to be collected each semi-annual event; it currently reads like each well will be sampled once per event but this needs to be specified. Also, field duplicates and MS/MSDs should be included (one of each for 9 wells sampled) in the sample count.
  - b. Referring to the groundwater sampling SOP, because the SOP has a table with low-flow criteria for many different state and EPA organizations, clarify in the work plan what pumps will be used and which stabilization criteria will be followed.
  - c. Lab verification should be discussed either in an attached SOP or the sampling plan narrative as well as any data validation if validation is being conducted. EPA recommends at least a partial validation be done periodically considering this is an ongoing data collection event.
  - d. Please include lab SOPs for TDS and TSS as well.
  - e. The responsible person at Pace and TC on the QA side should be identified in the sampling plan.
  - f. The plan mentioned project records will be available upon request. The timeframe they will be maintained and where they will be maintained should be specified or all records should be furnished to EPA when generated.
  - g. Section 2.2.4 of the groundwater sampling SOP notes that the preference is to sample as soon as possible after purging dry should the well be purged dry. EPA prefers at least waiting 24 hours before doing so. The initial refill of the well can re-suspend sediments and off-gas VOCs. For representative groundwater samples there should be some time for the well column to equilibrate after purging dry.
- 4) The 10-13-2016 TRC Memorandum titled "Polychlorinated Biphenyls (PCBs) in Groundwater" discusses groundwater sampling efforts for PCB since 2012 and identifies wells sampled in 2013. How many rounds of PCB data do you have from these wells?
- 5) Please provide a description of the observed groundwater flow direction in the unconsolidated and upper lone rock formation over the years including pre and post-groundwater extraction well influence. Provide a description of the extent of the zone of influence of the groundwater extraction well on these formations relative to the locations of existing monitoring wells. Please include figures if available.
- 6) Referring to the 11-29-2017 Rain Garden Interim Investigation Report and Proposed Excavation Work Plan, it is EPA's understanding that you performed a video evaluation of the portions of the sewer extending from MH-3W to the Outfall and then at MH-5A to investigate the presence of a black corrugated plastic entering the manhole. Additionally, the report states that the terminus of an abandoned metal pipe was found to be entering MH-3W. Are there other laterals entering this sewer system which may pass through PCB contaminated areas (e.g. from beneath the facility)? Do you have sewer maps identifying any such system from beneath the facility?

Thanks, Peter